

A Decade of New Labiatae from India, Burma, and Tibet

BY

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(WITH A FIGURE.)

1. *Acrocephalus palmiensis* Mukerjee. Sp. nov.

Species ex affinitate *A. indici* O. Kunz., a qua foliis superioribus fere sessilibus basi multo latioribus textura crassioribus utrinque scaberrimis, spicis plerumque magis elongatis, bracteis medianis conspicuis recedit.

Herba erecta, 20–40 cm. alta, basi paulo lignosa, ramis quadrangularibus sulcatis puberulis. Folia breviter petiolata, 2–4.5 cm. longa, 5–12 mm. lata, anguste ovata vel obovata, apice acuta vel nunc obtusa, basi lata cuneata, margine serrata, pilis scabridis utrinque conspersa, subtus ad venas densius; petiolus 1–3 mm. longus paulo alatus. Flores in spicas terminales cylindricas dense villosas 1–2 cm. longas 6–10 mm. latas arcte aggregati; bractee ovatae mucronatae 6 mm. longae, 7 mm. latae, dense villosae atque glandulosae, 12–15-florae. Calyx campanulatus glandulosus extra villosus 2 mm. longus; labium inferius superiore integro multo brevius dentibus quatuor erectis acuminatis ciliatis praeditum; in fructu calyx ad 4 mm. longus. Corollae tubus paulo exsertus 2.5 mm. longus. Stamina filamenta anteriora 1.5 mm. longa, posteriora 1 mm.; antherae reniformes. Stylus 2 mm. longus. Nuculae 0.7–0.8 mm. longae, ovoideae, atrobrunneae, striatae, punctulatae.

Habitat. S. INDIA.—Upper Palnis, Fischer No. 3064 (Typus in Herb. Calc.); and No. 3001.

2. *Acrocephalus verbenaeifolius* Watt MSS. Descript. Mukerjee.

Species inter affines indicas valde distincta; proximus est *A. spicatus* C. B. Robinson ex insulis philippinensibus qui foliis glabris vel fere glabris inter alia differt.

Herba erecta, 50–70 cm. alta, internodiis praelongis, ramis glandulosis sulcatis plus minusve scabridis. Folia linearia vel anguste lanceolata, 3–8 cm. longa, 2–5 mm. lata, sessilia vel subsessilia, apice acuta vel nunc acuminata, basi sensim angustata, margine dentibus

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subremotis serrata, utrinque plus minusve strigosa, glandulis bene notata, venis in dentes excurrentibus infra conspicuis. Flores in spicas terminales continuas dense villosas 1-3 cm. vel nunc 6-10 cm. longas 6-12 mm. latas compositi; bracteae sessiles membranaceae late ovatae mucronatae, 5 mm. longae, 7 mm. latae, pubescentes atque glandulosae. Calyx campanulatus 2 mm. longus, extra dense villosus; labium superius margine serratum; labium inferius dentibus 4 erectis acuminatis subaequalibus ciliatis praeditum; in fructu calyx ad 5-6 mm. auctus. Corollae albae vel pallido-flavae tubus gracilis paulo exsertus 2.5 mm. longus, labium superius subaequaliter 4-lobatum, inferius integrum. Filamenta anteriora 1.5 mm. longa, posteriora 1 mm. Stylus 2 mm. longus. Nuculae 0.7-0.8 mm. longae, ovoideae, atrobrunneae, minute tuberculatae.

Habitat: ASSAM.—Manipore, Kongalthana, G. Watt No. 6632 (Typus in Herb. Calc.). Also Manipore, Meebold No. 6100; Cachar, Prazer. E. BENGAL.—Griffith. BURMA.—Shweli valley, A. Rodger No. 108; Darn Uka, Lieut. Sidney Toppin, R.A. No. 4197; Kachin Hills, Shaik Mokim No. 45, and Meebold No. 7643.

3. *Dysophylla kachinensis* Mukerjee. Sp. nov.

Species valde affinis *D. Helferi* Hook. f. a qua foliis 3-natis minoribus lanceolatis margine paulo revolutis, spicis gracilioribus, calyce nuculisque minoribus divergit.

Herba erecta nana, circa 20 cm. alta, caule ramisque gracilibus strictis glabris. Folia 3-nata, sessilia, 8-13 mm. longa, lanceolata, acuta, margine remote serrulata atque paulo revoluta (saltem in sicco), utrinque glabra, infra dense glanduloso-punctata. Spicae numerosae, ramulos terminantes, 1-2.5 cm. longae, circ. 3 mm. latae, bracteis lanceolatis dense pubescentibus circ. 1 mm. longis. Calyx campanulatus, in fructu 1 mm. longus, pubescens, dentibus triangularibus tubum medium aequantibus. Corolla ex collectore rubida, vix 1 mm. longa, tubo campanulato paulo exserto, labiis brevissimis superiore longiore. Nuculae 3 mm. longae, orbiculares, brunneae, leves, nitidae.

Habitat: UPPER BURMA.—Kachin Hills, at Nakharan near water, December 1899, Shaik Mokim No. 52 (Typus in Herb. Calc.); also Metkina, Kachin Hills, Shaik Mokim No. 34.

4. *Salvia Lacei* Mukerjee. Sp. nov.

Species valde affinis *S. santolinaefoliae* Boiss. a qua foliis deltoideo-ovatis subtus conspicue glandulosis facile distinguitur; inter alia signa calyce valde glanduloso, labii superioris dentibus strictis notata; in *S. santolinaefolia* dentes laterales ad medianum flectuntur.

Suffrutex nanus, ut videtur 20 cm. auctus, ramulis numerosis strictis divaricatis gracilibus juventute dense albido-pubescentibus. Folia minima, petiolata, textura firma, rugosa; lamina deltoideo-ovata, obtusa, crenata, 3-5 mm. longa, 2-4 mm. lata, utrinque minute hispida,

subtus conspicue glandulosa; petioli inferiores laminam aequantes, superiores paulo breviores. Racemi terminales breves, nunc paniculati; bracteae circ. 1.5 mm. longae, ovatae, ciliatae. Calyx tubuloso-campanulatus, 3.5 mm. longus, fructu ad 5-6 mm. auctus, longe villosus, glandulis conspicuis sessilibus indutus; labium superius 3-dentatum, inferius 2-dentatum; dentes omnes triangulares, stricti, tubo multo breviores. Corolla 6-7 mm. longa, tubo exserto exannulato. Nuculae 1.75 mm. longae, elliptico-obovatae, nigrae, leves.

Habitat: BALUCHISTAN.—Chappar Rift, Lace No. 3967 (Typus in Herb. Calc. et co-typus in Herb. Edin.).

5. *Scutellaria assamica* Mukerjee. Sp. nov.

Species affinis *S. khasianae* Clarke a qua habitu graciliore, caulibus simplicibus, foliis acuminatis margine serratis nec crenatis, bracteis lanceolatis integris ciliatis, corolla longiore recedit; a *S. scandente* Don ex Himalaya septentrionali caule graciliore eramoso obscure quadrangulati vel tereti, bracteis omnibus integris inter alia divergit.

Herba erecta gracilis, 30-45 cm. alta, sparse pilosa vel glabrescens. Folia petiolata; lamina 3-6 cm. longa, 1-3 cm. lata, anguste ovata, acuminata vel nunc acuta, basi rotundata, margine serrata, utrinque sparse pilosa, subtus ad nervos densius; petiolus gracilis, vulgo 0.5-1 cm. longus, nunc 3 cm. Flores pauci, oppositi, secundi, in racemos laxos terminales dispositi, bracteis lanceolatis integris ciliatis inferioribus 5-7 mm. longis supra decrescentibus, pedicellis 2 mm. longis fructu ad 4 mm. auctis. Calyx 2.5 mm. longus, dense pubescens. Corolla circ. 2.5 cm. longa, minute pilosula vel glabrescens, albido-purpurea; tubus rectus infra gracilis supra sensim inflatus; labia brevissima. Filamenta glabra. Nuculae 1 mm. diametro, nigrae, tuberculatae.

Habitat: ASSAM.—Kohima, Naga Hills, King's collector (Typus in Herb. Calc.); Konoma, Naga Hills, alt. 1,524 m., Prain; Kapon, Manipur, alt. 2,132 m., Meebold No. 6464; Lushai Hills, Mrs. Parry.

6. *Gomphostemma Lacei* Mukerjee. Sp. nov.

Species affinis *G. parvifloro* Wall. a quo foliis apice late rotundatis facile cognoscitur; inter alia signa caule sulcato, foliis latissimis saepe suborbicularibus subintegris vel obscure serratis, petiolis longioribus, bracteis obovato-cuneatis serratis a socio separatur.

Herba erecta pilis stellatis cinereo-tomentosa. Caulis obtuse quadrangularis alte sulcatus. Folia longe petiolata, suborbicularia vel elliptico-ovata, apice late rotundata, basi abrupte cuneata, margine subintegra vel obscure sinuato-serrata, supra pilis simplicibus bene praedita, subtus pilis stellatis parvis induta; lamina 15-28 cm. longa, 9-16 cm. lata; petiolus ad 9 cm. longus, robustus, stellato-tomentosus. Flores breviter pedicellati, in spicas axillares et terminales 3-4 cm. longas laxè dispositi; bracteae 10-12 mm. longae, obovato-cuneatae,

serratae nisi ad basim, supra glabrescentes, infra tomentosae; bracteolae lineares. Calyx 8–9 mm. longus, campanulatus, intra pubescens extra tomentosus, dentibus lanceolatis tubo paulo brevioribus. Corolla 20–24 mm. longa, extra sparsim puberula, tubo recto 12 mm. longo, limbo 4 mm. lato, labio superiore 5 mm. longo, inferiore 6 mm. longo, 7 mm. lato. Stylus glaber. Nuculae desunt.

Habitat: BURMA.—N. Shan States, near Masam Falls, Lace No. 6322 (Typus in Herb. Edin.).

7. **Teucrium burmanicum** Mukerjee. Sp. nov.

Species ex affinitate *T. quadrifarii* Buch. Ham. a quo foliis membranaceis haud rugosis oblongis vel elliptico-oblongis, bracteis calycem aequantibus divergit; corollae tubo incluso, bracteis deltoideo-ovatis basi cordatis cum ea specie congruit.

Planta erecta gracilis, ut videtur 30 cm. alta vel ultra, caule dense ferrugineo-tomentoso obtuse quadrangulati vel subterete. Folia petiolata, membranacea, anguste oblonga vel elliptico-oblonga, acuta vel obtusa, basi rotundata vel subcordata, serrata, utrinque minute hirsuta; lamina 3–7 cm. longa, 1.5–2.5 cm. lata; petiolus 1–2.5 cm. longus. Racemi laxiflori, terminales vel axillares, paniculas 10–16 cm. longas formantes, bracteis ovatis cordatis acuminatis supra glabris infra villosis calyce minoribus vel nunc aequalibus. Calyx 5 mm. longus, tubuloso-campanulatus, extra villosus, intra fauces sparsim setosus, dente superiore rotundato apiculato, lateralibus obtusis, inferioribus lanceolatis acuminatis. Corolla alba, 12 mm. longa, tubo incluso, lobis lateralibus atque superioribus acutis, inferiore multo longiore ovato apiculato. Filamenta glabra. Nuculae globosae, 1 mm. diametro, rugosae, glabrae.

Habitat: BURMA.—Madoe Hill, C. Mundul No. 103 (Typus in Herb. Calc.); Makhaye Hill, Dr. King's collector.

8. **Teucrium shanicum** Mukerjee. Sp. nov.

Species affinis *T. Wattii* Prain a quo petiolo multo brevior, floribus flavis differt; quoad bracteas cum ea specie congruit; *T. quadrifarium* Buch. Ham. habitu subsimile bracteas omnino diversas habet.

Herba erecta gracilis, probabiliter 35 cm. alta vel ultra, caule subterete dense brunneo-tomentoso. Folia petiolata, ovata vel oblonga, acuta vel obtusa, basi rotundata, dentibus patentibus serrata, supra puberula, infra laxe hirsuta; lamina 6–9 cm. longa, 2–5 cm. lata; petiolus 0.7–1.5 cm. longus. Racemi laxiflori terminales et axillares, circ. 6–7 cm. longi, bracteis lanceolatis acutis basi cuneatis supra glabris infra pubescentibus inferioribus circ. 6 mm. longis; pedicelli calyce breviores. Calyx 5 mm. longus, extra pilis simplicibus atque glanduloso-capitatis dense pubescens, faucibus sparsim setosus, dente superiore rotundato, lateralibus brevioribus triangularibus obtusis, inferioribus lanceolatis acutis superiore paulo longioribus. Corolla ex

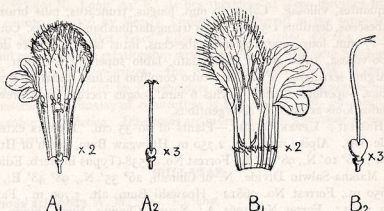
collectore flava, 12 mm. longa, tubo incluso, lobis quatuor acutis, infimo ovato apiculato. Filamenta puberula. Nuculae globosae, 1 mm. diametro, atrobrunneae.

Habitat: BURMA.—Shan States, Abdul Huk. (Typus in Herb. Calc.).

9. *Phlomis Younghusbandii* Mukerjee. Sp. nov.

Species arcte affinis *P. bracteosae* Royle ex Benth. atque *P. tibeticae* Marquand et Shaw a quibus caule plus minusve tereti, foliis carnosulis utrinque pilis stellatis conspersis facile cognoscitur; planta diu cum *P. bracteosa* Royle ex Benth. confusa atque in herbariis sub eo nomine locata.

Herba erecta vel suberecta, 20–35 cm. alta, caule subtereti pilis



A₁. *Phlomis burmanica*—corolla opened out, showing stamens and style.

A₂. Same—ovary with style.

B₁. *Phlomis Younghusbandii*—corolla opened out, showing stamens and annulus.

B₂. Same—ovary with style.

stellatis atque simplicibus brunneo-tomentoso, basi lignosa. Folia petiolata; lamina 3–5 cm. longa, 2–3 cm. lata, elliptica vel oblona, obtusa, basi rotundata vel truncata vel nunc cuneata vel etiam cordata, crenata, carnosula, rugosa, supra dense pubescens, infra pilis stellatis bene conspersa; petiolus 3–5 cm. longus vel in foliis superioribus multo brevior. Verticillastri 2–2.5 cm. lati; bracteae lineares, calycem aequantes, ciliatae. Calyx truncatus, 10–12 mm. longus, dense pubescens, dentibus 2 mm. longis triangularibus. Corolla 15 mm. longa extra albo-villosa; tubus gracilis, calycem aequans, intus annulatus; galea pilis longis albidis dense barbata. Nuculae obovatae, 2 mm. longae, nigrae.

Habitat: TIBET.—Dr. King's collectors, 1882; Khamba Jong, Younghusband No. 106 (Typus in Herb. Calc.; co-typus in Herb. Edin. et Kew); Kambajong, Major Prain; Gyantse, Walton; Dochin Hills, Stewart; Hills above Lhasa, Walton; Phari, Gould No. 21.

10. *Phlomis burmanica* Mukerjee. Sp. nov.

Species habitu atque pubescentia *P. tibeticae* Marquand et Shaw similis a qua calycis dentibus haud spinosis, corolla exannulata, galea pilis albidis villosa, staminibus styloque brevibus corolla inclusis inter alia recedit; a *P. bracteosa* Royle ex Benth. habitu pumiliore, calyce espinoso, corolla exannulata praeter alia signa removitur.

Herba parva suberecta, 20–30 cm. alta, simplex vel caudice valido multiramosa, caulibus flexilibus haud rigidis obscure quadrangularibus sparse villosis vel pubescentibus. Folia longe petiolata; lamina 4–7 cm. longa et lata, late ovata, apice rotundata, basi late atque breviter cordata, crenata, utrinque pilis patentibus villosa; petiolus vulgo 5–9 cm. longus, nunc paulo brevior, plus minusve villosus. Verticillastri circ. 2.5 cm. diametro; bractee lineares calycem aequantes, villosae. Calyx 10 mm. longus, truncatus, pilis brunneis pubescens, dentibus 1.5 mm. longis triangularibus haud spinosis. Corolla 14–17 mm. longa, extra sparse pubescens, intus labio superiore dense albo-villosa, tubo gracili exannulato, labio superiore 6–8 mm. lato margine serrulato. Filamenta tubo corollino inclusa, inferiora 2 mm. longa, superiora 1 mm. Stylus 6 mm. longus rectus, apice breviter bifidus lobis aequalibus divergentibus.

Habitat: UPPER BURMA.—Plants of 20–35 cm. Flowers exterior pale rose. Alpine meadows, 2,750 m. Htawgaw Bum, north of Htawgaw; 26° 10' N., 98° 25' E., Forrest No. 24538 (Typus in Herb. Edin.); N. Maikha-Salwin Divide, N. of Chimili, 26° 35' N., 98° 48' E., alt. 3,650 m., Forrest No. 26812; Hpawshi Bum, alt. 3,700 m., Farrer No. 1061; Farrer No. 1061 A; Naung Chaung, Nwai Divide, alt. 3,650–3,900 m., Ward No. 1800.